



ADDRESS TO STUDENTS. Delivered by the President, Mr. ASTON WEBB, R.A., F.S.A.,  
at the General Meeting, 1st February 1904.

BROTHER STUDENTS,—

**F**OR a second time it falls to my lot to address a few words to you on the occasion of the presentation of the prizes offered through this Institute.

Last year my subject was the importance of work for all intending to follow the art of architecture, and I was told by some that this doctrine was a little hard upon the young men, while, on the other hand, some students were kind enough to write me that they had found what I said encouraging and useful.

Still, though I do not believe for a moment that young men are afraid of hard work, I propose to-night to say something on the pleasures in connection with architecture, for I think there is no work in the world which has more pleasant by-paths and quiet resting-places than the art of architecture.

Of course the greatest pleasure of all is the pleasure of your work. If you do not feel this I advise you, as I did last year, to throw up architecture and take to something else before it is too late. Yet what pleasure can be greater than seeing the realisation of your ideas in brick and stone, even though your steps may be faltering and the result disappointing? If you can say with Tennyson, "Once in a golden hour I cast to earth a seed, Up there came a flower," then those golden hours will be your pleasure in life; few and far between they may be, but never to be forgotten when they come, and their memory will not fade.

Mr. Stopford Brooke, in closing his *Life of Browning*, describes him in words which perhaps you will allow me to quote, for they apply to an artist in stone as much as to one in words. He says of Browning, "No fear, no vanity, no lack of interest, no complaint of the world, no anger at criticism disturbed his soul. No laziness, no feebleness in effort injured his work, no desire for money, no faltering of aspiration, no surrender of art for the sake of fame or filthy lucre, no falseness to his ideal, no base pessimisms, no devotion to the false forms of beauty, no despair of man, no retreat from men into a world of sickly or vain beauty." And then, later on, he describes him as "Creative and therefore joyful, receptive and therefore thoughtful."

Then he continues, "Italy was his second country, in every city he had friends—friends, not only among men and women, but friends in every ancient wall, in every forest of pines, in every church and palace and town hall, in every painting that great art had wrought, in every storied market-place, in every great life which had adorned, honoured, and made romantic Italy."

What a vista of pleasures such a life suggests; and I venture to recommend to you young

men to take such an ideal as your standard and determine to live as near to it as you may. It all seems very high-flown and impossible, perhaps, at the moment, surrounded as you no doubt are, as we all are, by the petty cares, troubles, and drudgery of everyday life; but it is just because you are so surrounded that you should set your minds on something better, and you will come to find some good even in drudgery, as Carlyle found in the "common journey-work, well done for want of better."

One of the pleasures an architect should cultivate is reading—poetry of all sorts and kinds, romances, plays, and imaginative works generally. If you are to be creative you must also be receptive; you cannot always be giving out unless you are also taking in; and if you cultivate the habit of reading you will be able to get rest and refreshment from it, even at times of the greatest perplexity, anxiety, and even embarrassment. But you must acquire the habit while you are young, and it will enable you in the future to transplant yourself for an hour or two, at will, into an enchanted land, where builders cease from troubling and even your clients (or your desire for them) will be at rest.

Another of your pleasures will be the study of painting and sculpture (modern and antique). Alfred Stevens, sculptor, painter, and architect, used to say, "I know but one art;" and if you are wise you will know but one, and train yourself accordingly.

And now, what are the other pleasures of an architect's life that may be indulged in, with advantage to himself and his art? I will name a few, though you already know them well; and in naming them I do not suppose you can entertain them all. Still, you may acquire a nodding acquaintance with many of them; though, if you do, kind friends will probably remind you of the proverb, "Jack of all trades, master of none;" but there is a much wiser proverb than that, "Know a little of everything and everything of something." Follow that and you will be a well-equipped man, and that alone will be one of your greatest pleasures in life.

Travel is another of the pleasures that naturally appeal to an architect. You may go round the world or over Europe, or through England, though this costs money, and perhaps that is not a plentiful article with you. Well, then, you have plenty of scope in London alone, which need not cost anything to those who live here. Sir Lawrence Alma-Tadema gave a needed hint last year to those about to travel, not to go abroad till they knew something of their own country and their own city. Here in London we have two of the finest Gothic and Renaissance churches in the world, a series of Renaissance parish churches unequalled anywhere, and a wealth of domestic and commercial buildings, ancient and modern, that would take a man's life to know. A friend of mine, an architect, has hardly been out of England all his life, and I verily believe his art is the better for it; yet how few study what is at their doors. "For thus 'twas ever, things within our ken owl-like we blink at, and direct our search to farthest Inde, in quest of novelties."

To enjoy travel properly you must, of course, sketch and draw a little. In my day we used to make water-colour sketches, which had no value as pictures and still less as architectural records; but the making of them was and still is to some of us a distinct and harmless pleasure, not to be overlooked but enjoyed in moderation. The same pleasure can, I think, be got from pencil sketching, with a few of the leading dimensions added, and, though such sketches cannot be *framed*, they will be *useful*, which is far more important. The true value of all sketching is to enable the student to arrive first at the end the artist aimed at, and then to discover the means he employed; apart from this all the pretty draughtsmanship we see is quite thrown away. Still, sketching will always remain, however pursued, one of the recreations of an architect's life. Painting is not for him, except of course a general knowledge of painting and sculpture—enough to enable him to form an opinion of good and bad, and to

distinguish the works of different masters by their various methods; and no man should think of going to Italy without first mastering to some extent our great collection in Trafalgar Square.

Then there is archæology—a good servant but a bad master. We have allowed it to be our master for close on a century, and in return it has well-nigh strangled all the life out of us, so that we dare not call our style our own. The other day I was asked to write my opinions on what is called “l’Art Nouveau.” I was obliged to decline; but had I done so, I should have said that, though no admirer of that particular phase of art expression, I welcome almost any effort to break through the paralysing trammels in which archæology has bound so much of our work. Still, what greater pleasure can there be than to stay in a country village and trace the growth and history of its parish church, to study the Norman beginning, the various extensions from time to time for increased accommodation or display, the Founder’s tomb with his genealogy and heraldry, perhaps the matrix of a brass and the disfigured font, the occasional floor tile and the oft-deciphered fresco, all making an ideal holiday and an unadulterated pleasure; only, I must add, you had better leave it at that, and not attempt to reproduce what is not reproducible.

Then there are what I may call the somewhat sterner pleasures, such as the study of geology and chemistry. Unless you have had your thoughts directed to these at school you are hardly likely to take them up afterwards; but if you have, you will do well to keep in touch with them. The cliffs and the hills will be of more interest to you for the one, and all life for the other, and the materials with which you build for both.

Music, if you are gifted that way, will give you endless pleasure, if not apparently in very direct connection with your work; yet there may be more relation between the harmonies of sound and the harmonies of proportion than are at present dreamt of in our philosophy.

Another pleasure of a very different kind is that of criticising—not the pleasure of being criticised; that is a chastening ordeal good no doubt for all of us (and one which is never lacking); not the friendly criticism, however severe, among ourselves of each other’s work, which is natural, improving, and proper; not the friendly and informing criticism, such as we shall no doubt hear from Mr. Gibson to-night; but the pleasure it gives to some to find fault—to set up for themselves some almost impossible preconceived ideal of perfection, and then to hold up a building to scorn and reproach because it has not reached this ideal. Be as severe a critic as you like of your own work, and never allow yourself to be fully contented with it; but if I were you, I should leave criticism of this sort as much as possible alone. It is no doubt a duty which some feel bound for the good of their fellow-countrymen to undertake, and useful it no doubt is; but remember what the old Don said to his students: “Everyone may be mistaken sometimes, even the youngest of us.” You will find, I think, more real pleasure in the admiration of noble things and fine design than in the criticism of even mean and inferior work.

Perhaps one of the greatest pleasures our work offers to us is the opportunity and pleasure of friendship. Our branch of art is essentially associative. It is conceivable a man may paint a picture or carve a statue in the loneliness of his studio, unassisted by his fellow-man, and, as a fact, many painters take pride that they do this, and that their work is that of their own unaided hands. With us it can never be so, and we must cultivate sociability, and be able to rub shoulders and associate with all members of our craft. A policy of splendid isolation is least of all suited to an architect amongst artists. You will, if you are wise, be friends with all whom you employ. You will get better work from an intelligent mason by a little friendly chat with him, than with all your stringent clauses in specification and conditions of contract.

Some people seem to think an architect is a sort of detective set over the men to watch them, and would be horrified to see their architect on friendly terms with those they employ; but such people are not those that are best served, or get the best work done in the end.

The architect should rather be in the position of the general selecting his lieutenants to assist him in the work, and enjoying the full confidence of his men; they should be proud and pleased to see him on the work, anxious he should see what they are doing, knowing he will praise where praise is due, and blame only where blame is necessary. This may sound to you a little Utopian, but it should not do so. If it is there is something wrong somewhere, and it is for you young men to help to set it right.

Then the pleasure of friendship with your brother-architects is one that may last your life or theirs. Our meetings here, and at the Architectural Association, offer the opportunity of sowing the seed, which can be strengthened in numberless ways. For myself, I have always been a member of one or more small coteries that meet periodically at each other's houses, and they have always been red-letter days to me. In London, personal competition is rarely so keen that the most strenuous life need be the cause of losing friends.

I have heard that the late William Burges used to say, the happiest moment in an architect's life was when he received notice that he had won a competition, and before the troubles and anxieties of carrying it out had come upon him. But I would not myself lay too much stress on this, for there is also from time to time, to the man who competes, the counterbalancing depression caused by the receipt of a communication of a different kind. At the same time, I may be allowed to say that some of my happiest times have been passed in working out large competition problems with my friend Mr. Ingress Bell, and I have found there is real pleasure attending on such work.

And now I have left the greatest pleasure of all to the last, the pleasure we may legitimately feel in going over our completed building, in which we have done our level best, with all the skill which we have been able to bring to bear upon it—no detail ill-considered, no requirement overlooked; perfect it cannot be, but if it is as perfect as we can make it we may legitimately be proud of it and honestly pleased at its completion. What more touching picture than the aged Christopher spending each birthday, after the completion of St. Paul's, under its mighty dome? You may be sure that was one of his greatest pleasures in later life, and one he could not have enjoyed had he not known he had done his best.

It is for us older men to see visions—visions of what might have been. It is for you younger men to dream dreams—dreams of what may be. Perhaps some of you are workers who dream no dreams. Well, do not despise those who do; both are required in the world—in our world especially—the dreamer and the practical man. Once in a way, but very rarely, they are found in one man, and then we have the rarest of all products, the Genius, like Christopher Wren, or Tennyson, who, when over eighty, sent his last message to young men—

O young Mariner,  
Down to the haven,  
Call your companions,  
Launch your vessel,  
And, crowd your canvas,  
And ere it vanishes  
Over the margin,  
After it, follow it,  
Follow The Gleam.

And now I have very imperfectly jotted down, amid a variety of occupations and distractions, some of the pleasures that may come into our lives if we will; it is pleasant for

a moment to dwell upon them and to leave dull care behind. Such are the things that will help to make us sing at our work and enjoy it, and so make others enjoy it. You and I will not stand here face to face again, as we do to-night, and so I am glad my last words are not of faction, of disputes and controversy, but of the pleasant side of our art.

I am well aware I have said nothing of that all-important matter Design. I have refrained from doing so, because I believe, with William Burges, that this is a direct gift given to each of us, in a more or less degree, and there is, therefore, no good in talking any more about it; but, in wishing you all farewell, I also wish you every success in the future.

Some of you will, I doubt not, occupy this chair in due course, and be as surprised to find yourselves here as I have been; but whatever may be in store for you, determine you will hold high the standard of our art, and keep your shield bright so that you may stand before the world and be not ashamed.

### REVIEW OF THE WORKS SUBMITTED FOR THE PRIZES AND STUDENTSHIPS 1904. By JAMES S. GIBSON [F].

Read at the General Meeting of the Royal Institute, 1st February 1904.

THE value of any real criticism lies in the impartial and judicious attitude of the critic towards the work, and it shall be my endeavour to waive any personal preferences or prejudices and treat the subjects in a broad and liberal manner. The usefulness of the criticism lies in the openness of mind of those criticised to allow the resulting reasons and decisions of the critic to influence their work and methods, so that improvement may come; and I am sure you, as students, will not shut out of your mind anything I may have to say simply because it does not happen to coincide with the views you now hold.

#### THE ESSAYS.

Before dealing with the drawings and designs let me say a few words on the Essay, for which, unfortunately, no work has been submitted this year of sufficient merit to obtain the award.

Repeated attempts have been made of recent years to get a good response for the Essay Medal, and this year eight competitors entered the lists; and it is disappointing to think that not one of those had sufficient grasp of the subject or literary style to obtain the prize, which I am confident would not be withheld by the Council without just cause.

Now, the value of expressing oneself clearly in good, terse language is of great moment to you as architects, and the habit of putting in writing your ideas, desires, and conclusions is certainly one you should cultivate. You need not think that you have to be a Ruskin in your command and mastery of language to obtain this prize: literary style and finish are no doubt essential, but the cultivation of style will in itself be a pleasure and bring its own reward. To those who are ambitious—and surely ambition courses through the veins of youth—there is an incentive in knowing that the name of one of the foremost novelists of our time, Thomas Hardy, will be found on our scroll as prize essayist for the year 1862.

In taking leave of this subject, let me say, as one who has had some experience on the Prizes Committee, that we find the greatest difficulty in obtaining subjects for the Essay and also for the Designs—subjects which shall be broad, likely to appeal to a great number, and of value to the whole profession. I am sure the Committee would gladly welcome suggestions

of subjects for future prizes, and if you have any ideas send them in at once for our consideration. Remember that anything in the nature of specialisation is to be avoided.

Now let us turn to the Drawings. I propose to review these in the order of their educational sequence or value, taking first the Measured Drawings, the Pugin Studentship, and the Owen Jones Studentship, as studies of old work upon which architectural knowledge is based; secondly, the Grissell Medal, as design governed by construction; and lastly, the Tite and Soane Prizes, as designs which show the fruition of the first two groups. I think if students entered for these prizes in the order I have named they would be going through an educational experience which would be of great value to them and likely to lead to beneficial results.

#### THE MEASURED DRAWINGS.

The Measured Drawings have attracted twelve competitors, and the Medal goes to Mr. L. M. Gotch for a creditable set of drawings of the Church of St. Oswald, Ashbourne, Derbyshire. The one-eighth scale drawings are all good: clear records of an interesting work, carefully rendered—just what we have a right to expect in measured work. The half-inch scale is very weak in freehand drawing, of which there is very little in this set; and in this respect it falls below both the sets distinguished by Honourable Mention. The full-size sections are unsympathetically drawn; there is too much compass work about them. Remember that T-square and compass drawing is the most elementary kind of drawing and easily acquired. All students would do well in their full sizes to make it quite clear which is the section side of their mouldings, as several of those submitted would read equally well either side, and I would suggest a flick of the brush occasionally on the inside of the moulding, or a thick and thin section. You may find it very annoying in after life to have, for example, your plaster cornices run the reverse way of the moulding because you have not made it absolutely clear which side of your drawing you wanted the mould cut to fit.

The half-inch details of tracery windows submitted by Mr. G. S. Salomons are beautifully drawn and deserving of commendation.

#### THE PUGIN STUDENTSHIP.

We now pass to the Pugin Studentship, which has only attracted three competitors, of whom one is not important enough to justify serious criticism. The Medal is awarded to Mr. F. C. Mears for a comprehensive set of drawings of rather unequal merit. The coloured sketches are sadly lacking in clearness and vigour, and do not express the character of the work. The measured drawings are very good, and those of Pershore Abbey are particularly fine. The pencil and wash drawings are much better than the coloured work, and show sympathy with the mediæval architecture—work which this Studentship was founded to foster—and I have no doubt the student will greatly benefit by his further studies of it. A Medal of Merit has been awarded to Mr. W. S. A. Gordon for his well-chosen subjects and sympathetically drawn work. The pencil drawings are among the finest ever submitted in this competition.

#### THE OWEN JONES STUDENTSHIP.

The Owen Jones Studentship is awarded to Mr. W. Davidson as the best of the five competitors. The drawings show a certain facility in handling watercolours and an ability to draw the figure, more than an appreciation of architecture decoratively treated with colour, of which there is no good example among his exhibits.

I would especially direct the attention of students to the unwise practice of late years to

show examples of marble and mosaic floors and wall linings of elaborate geometrical patterns, which apparently entail an enormous amount of purely mechanical drawing to portray, the artistic results of which are so limited in scope and value. This is especially seen in the prize-winner's sheet of floors and friezes and Mr. L. Rome Guthrie's sheet of marble floors. The endeavour of the student should be concentrated on getting a grasp of the motive that underlies the decorative scheme of any building, the basis upon which the scheme is founded.

A note of the detail of a floor or a frieze which is almost entirely geometrical and mechanical in the repetition of its parts is quite enough if the note be a true one as to colour and form.

To illustrate my meaning clearly I think the drawings of the Mihrab in the Mosque at Cordova, and the Capello Palatina, Palermo, are splendid specimens of the type of drawing which this Studentship was founded to encourage. They show the application of colour decoration to architecture in the sense understood by Owen Jones. Those drawings have no tone or atmosphere, although these are the qualities which play the most important part in the colour scheme of any decorated building; but they show the form and colour of the ornament, which used on the building produce the results we all admire. They are really an analysis of the colour scheme, and are valuable on that account. A Turner or a Roberts could give us the tone and atmosphere of these buildings, but we could not deduce from their paintings the means by which the effect is obtained.

The watercolour sketches submitted by Mr. H. Morley are an attempt to depict the tone and effect of buildings and landscapes, but they are not very successful as such; and certainly do not bear any relation to the purposes for which the Studentship was instituted. His drawings of purely architectural detail, such as the "full sizes of a painted altar-piece," are feeble in the extreme.

I would strongly urge students to concentrate their energies on architecture decorated with colour, to portray examples of church roofs, arcades, walls, and domes; they will find the work just as interesting as doing a few scraps of glass or mosaic or tiles, and they will be better equipped to deal with the decoration of their own buildings. They will thus be able to dispense with about one-half of the drawings now sent in, and the Council will be much better able to judge if the winner is likely to benefit from the further study which the Studentship affords.

#### THE GRISELL MEDAL.

We have finished the first part of our subject, and now come to the application of what we have learned, and the Grissell Medal comes first, in that it was founded for the encouragement of construction as governing design. The timber spire or lantern has attracted fourteen competitors, and Mr. W. Hepburn comes easily first. The design is an excellent one, clever in inception, splendidly drawn, and carefully worked out in all its details.

The problem is one in carpentry, and one which has been solved by the old carpenters who worked on our mediæval cathedrals in many beautiful and interesting ways, and I think as an exercise it should be worked out logically in the same fashion, and not have rolled steel joists and concrete floors introduced into its solution, as is done by some other competitors. I do not mean for a moment that we should discard the modern steel joists and other inventions, but rather that an exercise in carpentry should be worked out in carpentry, and one in stone worked out in that material. There are few things more inspiring than the grand old roofs and lanterns of the carpenters who knew the capabilities and value of their splendid material. With the exception of the first design, the draughtsmanship of the others is hardly up to the standard one would expect.

## THE TITE PRIZE.

The Tite Prize begins our list of designs pure and simple, although one cannot say they are either simple or pure designs.

The subject of "A Crescent in a Large City" is an exceedingly attractive one, and I am glad to see eleven entrants, all of them being creditable efforts, and some of considerable merit.

The Prize is awarded to Mr. Heaton Comyn for a nicely proportioned scheme, thoroughly well thought out and capitally drawn. We expect to find in this and the Soane competition grouping of masses, architectural arrangement, good proportion of the various parts, balance of solids and voids, and refined detail, and I am sure the author of the winning design has an appreciation of these qualities. The arches spanning the two streets are open to criticism in that the haunches appear to be too weak, and this same defect is to be found in other designs. The competitors should study Waterloo and London Bridges and see what value is to be obtained by having deep voussoirs at the haunches of the arch. The half-inch detail is nicely drawn, although I am inclined to think the work is too delicate for a street façade on a big scale. The Medal of Merit awarded to Mr. A. D. Nicholson was probably given for his capital watercolour. The proportions of his design are good, but the detail is coarse and not well drawn. "Red Shield" has a fine set of drawings, the half-inch detail being especially good, but the proportions of the upper and lower parts of his design are too equal.

## THE SOANE MEDALLION.

The Soane Medallion has brought forth fourteen competitors of very varied capacities. Some of the drawings are of considerable merit. The Medallion has been awarded to Mr. F. J. Horth, whose scheme is on the whole the most coherent and satisfactory. The plan is laid out on sound architectural lines, well proportioned and balanced. The interior is also simple in its parts, nicely built up, the exterior perhaps being the least satisfactory part of the design. The interior eye to the dome is very badly managed, and wants some supporting ribs or other means of bringing it into relation with the rest of the work. The detail wants refinement, and the drawing is hardly up to the standard one has reason to expect in our premier competition. Mr. David Smith secures honourable mention for a really nicely conceived exterior the component parts of which are good, and the general effect is perhaps the best of all the designs. The plan and interior are, however, not up to the same level. It is a great pity that the inspiration of the exterior failed when the plan and interior were fashioned. The drawings are rather slight and lacking in decision and clearness, but they are worthy of the distinction. "Rotunda" sends a restless design, lacking the dignity and reserve which the subject demands. The drawings are probably the best of their kind submitted this year, the interior view being especially good; but even here the author has succumbed to his weakness for flamboyant detail. "Sanctus Boscus" sends a fine dignified interior which is wedded to an almost impossible plan.

My duties as critic are now ended. I hope that I have not wounded the feelings of any who have laboured in these various competitions, and I would like to conclude by saying to you, as a fellow-student, the chief reward of labour may not always be a prize. Who knows but that the efforts made in striving to obtain the prize may have awakened feelings and aspirations which will bear fruit far greater than the victor's laurels? While to those who have succeeded in this friendly tournament of skill let me say, Use your successes as stepping-stones to higher achievements.



9, CONDUIT STREET, LONDON, W., 6th Feb. 1904.

## CHRONICLE.

### The Prizes and Studentships 1904.

The Annual Exhibition of the works submitted in competition for the Prizes and Studentships in the gift of the Institute opened at the Gallery of the Alpine Club on Tuesday the 19th ult., and closed on Saturday the 30th. The visitors' book showed 1,398 signatures—over a hundred and fifty more than last year. The number of competitors was seventy-three, as against sixty-nine last year; number of strainers 321, as against 355 last year. The drawings done by the Travelling Students, Messrs. Fulton, Gascoyne, and Gibbons, were hung in the Meeting-room on the occasion of the Presentation of Prizes on the 1st inst., when they were referred to by the President in his remarks reported below.

### The Annual Addresses to Students.

As on the last occasion of his addressing the Students, the text of the President's Address as prepared for and now printed in the JOURNAL formed only part of his remarks actually delivered at the meeting. Amongst other interpolations unhappily not taken down by the reporter were reminiscences of his own days of pupilage, when it was customary to serve five instead of three years, and when some of the duties which fell to the lot of the pupil, if they were not without their compensations to the youth at the moment, could scarcely be recommended as an ideal system of education for the career of an architect.

Mr. Gibson was unable to be present to deliver his Criticism of the Students' Drawings. A telegram from him was handed in at the last moment, stating that he was detained at Walsall and could not reach the meeting in time; and his remarks, which were already in print, were read by the Secretary.

The following is a note of the speeches made on the Vote of Thanks:—

MR. W. GOSCOMBE JOHN, A.R.A., said he was present as a guest that evening—a sculptor guest. Sculptors frequently found themselves the guests

of architects, but still more frequently Sculpture found itself the guest of Architecture. The pleasures of Architecture were, perhaps, to all lovers of art, the most common; those of painting and of sculpture were much more limited. Wherever one went, wherever one travelled, however obscure the place, however tiny the village, one always found something in Architecture of interest—a tiny church, a tiny cottage—there was invariably something to interest one's critical or one's archaeological faculties. This was not so with sculpture and painting, therefore to artists generally there was no art so vitally interesting as architecture—particularly to the sculptor. Speaking personally, he was brought up a good deal under the influence of architecture. The President had mentioned the late William Burges, whom he (the speaker) had, as a boy, the privilege of knowing, and he received much helpful encouragement and advice from him. William Burges was, too, of all men the most inspiring of workers. The speaker concluded by asking the Meeting to join him in a very hearty vote of thanks to the President for his very delightful address.

MR. W. D. CAROE, M.A., F.S.A. [F.], said he rose with very great pleasure to second the Vote of Thanks. At the outset, however, he could not help expressing a slight note of sadness on hearing from the President that this was the last Address he would give from the Presidential Chair. It had been a great pleasure to him, and he was sure to every member of the Institute, to see Mr. Aston Webb in that chair, and it would be an equal regret to them should he vacate it without serving, as they all wished he would do, the third year of office which they, in perhaps rather a selfish way, regarded as the meed to be offered to Presidents who distinguished themselves as Mr. Webb had done. He was sure that no happier words could have been spoken than those used by the President that evening in pointing out to them, as students, the pleasures of the great profession they all did the best they could to adorn. He had often felt that there was no side of architecture which the public knew less about, which even among themselves was not acknowledged as it might be, than the joy which their work brought to them; and it was indeed a happy inspiration of the President to dwell in his last address upon the pleasures and sweetnesses of their art. It would be difficult for him to supplement the list of the architect's pleasures which the President had given them; but he should like to mention the extraordinary joy experienced by the architect, not only in contemplating his completed work, but in actually being present on the building and seeing it grow. Speaking for himself, that was the greatest pleasure architecture afforded him. He had often wished that the whole tenour of the methods of their profession could be altered,

and that it could be a self-denying ordinance amongst architects that they should carry on only one work at a time, and be present on the building the whole time of its erection. To watch brick placed upon brick and stone upon stone brought to the architect a pleasure which very few other callings could boast of. In conclusion, he thanked the President most heartily, and he was sure the meeting would join with him, for the kindly words he had addressed to them, and the charming thoughts he had put before them.

The PRESIDENT in responding on his own and Mr. Gibson's behalf, said that Mr. Gibson had given them a most admirable review of the works exhibited. He (the President) had had this task to do himself, and he knew how difficult it was—that is to say, to do it truly and honestly as it ought to be done, and yet without hurting the feelings of those whose drawings were criticised. Mr. Gibson had hit the happy medium exactly, and had fairly, and in a kindly spirit, criticised the various works. He was sure it was their wish that their thanks should be conveyed to him for his valuable contribution to their proceedings (*hear, hear, and loud applause*).

Before presenting the Prizes the President called attention to the work on the walls done by past Students. One side of the room was hung entirely with drawings the outcome of Mr. J. B. Fulton's travels as Soane Medallist 1902. They would be found, said the President, a very beautiful set; and, numerous as they were, they represented only about a half of the studies actually made. Mr. Fulton had asked permission to defer sending in his work for the present in order that the whole collection might be shown together at a later period. This, however, the Council might not be in a position to arrange, so it was thought better to conform to the rules and show what they could of his work on the present occasion. On the opposite wall were some excellent drawings by Mr. Charles Gascoyne, *Title Prizeman* 1902, which would well repay examination. Mr. Gascoyne, observed the President, was evidently a colourist, and knew where to go for his studies. He, however, had not devoted himself entirely to the brush but had done measured work as well. There were also drawings by Mr. Harold Gibbons, the result of his Pugin tour of 1903. Thus, concluded the President, it would be seen that their Prizes and Studentships resulted in good work, and the Institute was able to afford opportunities to young men which otherwise they would not have.

The President then distributed the Prizes as noted on the Minutes.

#### Mr. Saxon Snell's Bequest to the Institute.

At the Meeting last Monday the following extracts from a letter to the Secretary from Mr. A. Saxon Snell [*F.*] were read by the Secretary.—

"I beg also to acknowledge your letter of 20th inst., and on behalf of my mother and the family generally, return thanks for the very kind vote of condolence with us in our loss, passed at the meeting on 18th inst., and to assure you that we much appreciate this evidence of the respect in which my father was held by the members of the Institute, of whom he was one for so many years.

"It is my privilege to inform you that under the terms of his will a sum of £750 will in due course be handed to the Institute for the institution and maintenance of a special triennial Scholarship. Later, I will forward the precise terms of this bequest."

The PRESIDENT said he was sure every member of the Institute would be grateful to Mr. Snell for the donation he had left by will towards the encouragement of architecture and the education in architecture of their young men. Later on, when particulars of the bequest were received, a scheme would no doubt be laid before them and they would pass a formal vote of thanks to Mr. Snell, the son, for the communication he had sent them.

#### The new Director of National Museums, France.

M. Homolle [*Hon. Corr. M.*] has been appointed Director of National Museums and of the School of the Louvre—one of the most coveted posts, and perhaps the most responsible, at the disposal of the French Minister of Public Instruction. M. Kaempfen, who is retiring in his seventy-eighth year, has held the office since 1887. M. Homolle is fifty-four years of age. His excavations at Delos first drew the attention of the learned world to him; and the treatises to which he committed the results of his labours there revealed the gifted writer as well as the archaeologist. To this double merit he owed his election in 1892 to the Académie des Inscriptions et Belles-lettres, and two years later his Directorship of the French School at Athens. Of his brilliant work at Delphi members had specially favoured means of judging a few weeks ago, when the distinguished explorer himself built up before them in the Institute Meeting-room the exquisite monument the Treasury of Cnidos, and discussed its relationship to the art of Ionia. The University of Cambridge has since conferred upon him the honorary degree of Doctor of Letters. The French Government is to be congratulated upon the wisdom of this selection.

#### The Société Centrale des Architectes Français.

M. Constant Moyaux [*Hon. Corr. M.*], who has completed his three years as President of the Société Centrale des Architectes Français, has retired from the office, and is succeeded by the eminent architect of the Sorbonne, M. H.-P. Nénot, Member of the Institut de France.

## REVIEWS.

## TRAVELLERS' JOY.

*Stray Studies. Second Series. By John Richard Green. So. Lond. 1903. Price 4s. net. [Macmillan & Co.]*

We architects sometimes wonder, not wholly in arrogance, what is the pleasure of foreign travel to the man of unarchitectural mind. Such a book as Green's *Stray Studies* gives at once an answer to our question and a justification for the feeling which prompts it. The answer is, that the historian has an equipment for the enjoyment of pilgrimage no less efficient than that of the architect, and the justification for our seemingly proud question is that the very historian cannot work out his pleasure without reading the documents which are the products of our ancient craft, nor can he read those documents without understanding them. We are then not entirely vain in our pride. The historian is the only serious rival of the architect in this enjoyment of travel, and his rivalry only thrives by the actual sharing of our panoply.

In talking thus I am, of course, wilfully ignoring whole tribes of so-called travellers. There are thousands of our fellow mortals who go, poor things, to the Riviera to miss London fogs, to Homburg to baffle gout, to Monaco to lose their money, or perhaps to the Alps to lose their lives. There are people who go from Balham to the Baltic because ten other people from Balham are going in the same ship, and there are those who, finding themselves unpopular among their home neighbours, hie to Jericho in a steam yacht with the invincible intention of making friends *en route*.

All these, justly or unjustly, I leave out of my present consideration of the pleasures of travel; I leave out, too, those travellers—honourable and courageous though they be—whose goal is in the region of remote savagery, for I am here choosing to mean by "the pleasures of travel" those excitements of the cultivated mind which arise from personal association with the scenes of bygone civilisation. In fact, I put a limit on the subject by confining it to its most illimitable sense.

One man, indeed, I have forgotten, who must be admitted to voyage in equal happiness with the architect and the historian, a kindred man—the student of painting and sculpture.

The book we have before us, though new in publication, is old in the writing. The articles, of which there are twenty-seven, are reprints from the *Saturday Review* of some thirty years ago. Not all of them deal with buildings and places, some are concerned with those economic and social questions which vex Britain now as they did then, others are purely historical or ethnological; but all are full of those human interests which touch architects as they touch other men,

and three or four are so distinctly written from the point of view of the architectural *savant* that there can be no impropriety in their coming under the notice of this journal.

You, Sir, and you among my readers who have made pause at Como on your happy outward way to Venice, Florence, or Rome, have ascended, no doubt, that stiff little Monte Baradello which gives so fair a view as a reward to the climber. Generally one has no wish to find a fellow-countryman in such a spot.

"Beneath is spread, like a green sea,  
The waveless plain of Lombardy;  
Bounded by the vaporous air,  
Islanded by cities fair,"

and the hour, in which a man quotes these lines of Shelley for the first time on his own account, risks its perfection if spent in the company of the chance man-on-the-summit, that inevitable forerunner who is so often the preoccupant of the ground that should be a solitude. But after reading the essay on Como, which comes fourth in this volume, you will probably agree in thinking well of the fortune which should decree the fortuitous stranger to be John Richard Green. You would, perhaps, have joined him in a silent search along the horizon till a sun-gleam in the distance lit up for you the "great marble mass" for which his eyes and yours were looking; and then some remark of his offering a criticism upon the building, to which the British tourist gives unblurred adoration, would show you that you were dealing with one who had the power of right judgment, and turning with him to the Como side of the hill, you would have discussed the Lombard dignity of San Fedele whose "deep exterior galleries recall the German churches along the Rhine, and that small but most graceful creation of the eleventh century the Church of Sant' Abbondio."

"The duomo," he tells you, "is disappointing, with the notable exception of the west front, which is a fine specimen of late Italian Gothic"; and you would rejoin by bidding him not overlook the superb quattro-cento work of the south door, which is attributed to Bramante, and which bears upon its tympanum a memorable "Flight into Egypt."

Then would he tell you more about the history of the place than you are likely to have cared to read in your guide-book; more, indeed, than your guide-book had to tell.

He would make Frederick Barbarossa a reality for you, and would give you to understand that the Broletto, which had been the subject of your morning's sketch, was not merely a thing of architectural beauty but a symbol of the "new popular life which sprang from the Italian town masses of the eleventh century, and of the new eloquence which sprang from the Italian communes."

And then, somehow, in the course of a talk in which he has spoken of such diverse but kindred themes as British freedom, Luini's frescoes, St. Edmundsbury, Garibaldi, and Victor Hugo, and in which you, perhaps, have added a contribution on Merzario and his engaging Comacines—who may or may not be the mainspring of all mediæval art—you have slipped back in chronology to a mention of Pliny, and your companion has held forth the suggestion that since Pliny's day Como has made but little contribution to letters.

This gave you your chance, I think, for a reminder of Cesare Ciserano, and you put a little pardonable warmth into your eulogy of the great Vitruvius that came from the Como press of Gotardo da Ponte. Your new friend rejoined, no doubt, that the prose of Caesar Casarianus, who latinised his Italian as much as he latinised his own name, was not fit to be put alongside of the world-renowned epistles. But to this, as you went together down the hill, you answered a word to the effect that if the function of literature has to do with the making of beautiful books, this sixteenth century folio of fair print and incomparable woodcuts was at least fit to rank, to Como's credit, as a bit of literary output. You added something, no doubt, about your own copy, bought dirt cheap for cinquanta lire in Rome, and bound in the parchment of a plainsong "Magnificat," till, talking of books and nations, buildings and dead princes, you came at length to the welcoming inn whose name recalls yet another Comacine, the modern (but how ancient) Volta of electric fame.

But you never did meet John Richard Green on the hill-top. Nor did I; and to-day it is twenty years since he died.

I could wish there had been more of these place studies. A book full of them would rank with Symonds's *Sketches in Italy*, or with Bourget's *Sensations*. Such writing is no mere literary scrap-meat. To group a set of historical thoughts or a chain of artistic chronicles around the place to which they belong is no idle gratification of the palate that refuses stronger and longer reading. It is not for nothing that the aroma of history hangs on the spot where human influences and passions were wrought into events, and even if there were nothing to be gained from the breath of this haunting *genius loci*, the mere fact that a traveller cannot take Gibbon and Vasari, or even a classical dictionary, on his pilgrimage, authorises the existence of these monographs of place.

I chose the Como sketch at random from the volume. In some ways it is the prettiest, but there are others as good. The chapter on the Château Gaillard, that "Saucy Castle" which our Richard of the Lion-heart raised as the rampart of Normandy, is equally picturesque.

Perhaps it is natural that Green's writing on this sturdy ruin should have a little of Turner's touch about it, and his few words about Turner's

work show how true a critic he was of method in art as well as of historical influences. "At the first sight of it, indeed, Turner's sketches seem to be wild exaggerations, and it is only the long, stiff pull up to the ruins and the sight of the Petit Andely right at our feet with its brown lines of roofs, its wooden gables, and its little dwarf *flèche*, dwarfed into a toy town by the height, that teaches us how much truer a great painter's eye is likely to be than our own." There never was written a neater defence of Turner. Think of its needing an historian to tell us that Turner had got the "stiff pull up" into his brush-work! This is art criticism *in excelsis*. Green's prose sketch of Rochester and its castle is a water-colour in words. I will not quote it here. I will only say that it is a perfectly quiet description, simple but strangely impressionist.

Of the other subjects that will appeal directly to architects and lovers of architecture, I must mention a paper on Troyes, another on St. Edmundsbury, and a third on Knole. They all have the qualities of vivid historical insight and acute appreciation of architectural beauty. How true it is that architecture is history's brother, and if it be the case that Green's historical writing is made definitely more attractive by his love and knowledge of buildings, is it not a melancholy corollary that we architects sometimes lose half the pleasure that we might have in our own art by the gaps of nescience in our historical armour?

PAUL WATERHOUSE.

## NOTES, QUERIES, ETC.

### Lead Architecture: Nonsuch Palace and Stucco Duro.

From R. PHENÉ SPIERS, F.S.A. [F.]—

In a Paper read by Sir Digby Wyatt before the Institute on 18th May 1868, on "The Foreign Artists employed in England during the Sixteenth Century, and their Influence on British Art," the clearest evidence is given not only as to the name of the artist (Toto dell Nunziata) who was employed in the design of the Palace of Nonsuch, and the modelling of its bas-reliefs, but as to the material in which the latter were made. Evelyn, as quoted by Sir Digby Wyatt, refers to "the plaster statues and bas-reliefs inserted 'twixt the timbers and punchions of the outside walls of the court which must needs have been the work of some celebrated Italian. I much admired how it lasted so well and intire since the time of Henry VIII., exposed as they are to the air, and pity it is they are not taken out and preserved in some dry place—a gallery would become them. There are some mezzo-relievs as big as the life. The story is of the heathen gods, emblems, compartments, &c. The palace consists of two courts, of which the first is of stone, castle-like (built in the reign

of Elizabeth), by the Lord Lumley; the other of timber, a Gothic fabric, but these walls incomparably beautified. I observed that the appearing timber punchions, entrellices, &c., were all so covered with scales of slate, that it seemed carved in the wood and painted, the slate fastened on the timbers in pretty figures, that has, like a coat of armour, preserved it from rotting."

There seems to be some difference of opinion as to the means employed to protect the wood-work, for Pepys says, "Most of the house is covered—I mean the posts and quarters in the walls—with lead and gilded."

The covering of the timber posts with scales of slate is the usual method of protecting it, not only in the South of England, but in Brittany; but some of the more prominent portions of the palace, as, for instance, the principal entrance way, may have had the woodwork covered with lead and gilded. Either way it seems almost certain that these bas-reliefs were in plaster of some kind; had any of them—and there would seem to have been over three hundred—been in lead, it is impossible they should all have disappeared.

In the latter portion of his Paper Mr. Gardner referred to the introduction of some plaster from Italy, and more enduring and capable of more artistic treatment than lead. Does Mr. Gardner here refer to the introduction of the *stucco duro* into England, a description of which was given by Mr. G. T. Robinson in a communication he read to the Institute in 1891?

The composition of this *stucco duro*, which resembled the material referred to by Vitruvius, was discovered by Giovanni da Udine, and employed by Raphael in the loggie of the Vatican. It was brought to France by Primaticcio in 1531, and used by him in the figures decorating the great staircase at Fontainebleau, and Henry VIII. is said to have invited many Italian and other artists to England, and among them Toto dell Nunziata. Mr. Robinson quotes Vasari, who says, in speaking of this artist, "he did all manner of work for the King in architecture, and in particular the principal palace." But the only palace erected by that monarch was that of Nonsuch, and, as stated by Mr. Robinson, "each panel was filled with a coloured stucco figure, exactly the kind of work suited to Toto's training."

We can only regret that these bas-reliefs were not in lead, because some of them would have found their way into various collections; and I am quite willing to agree with Mr. Gardner as to the possibilities of lead in that direction, which is what he desires to encourage.

#### Lead Architecture: Richmond Palace.

From RALPH NEVILL, F.S.A. [F.]—

Mr. Gardner, in his interesting Paper, leaves it rather doubtful if he realises that Shene was

simply the earlier name for Richmond Palace. On the completion of the rebuilding in 1501, after a fire, Henry VII. changed the name to Richmond.

In vol. iv. of Brayley's *History of Surrey* are numerous extracts on the subject of Nonsuch.

The following from Evelyn's *Diary* is, I think, conclusive as to the outside figures being of stucco; so experienced a builder as Evelyn could hardly have been mistaken, although it is fair to say that he states that the timbers were covered with slates cut to ornamental patterns, and used as weather tiles. Pepys, however, describes the coverings as of metal. It is possible that slates, cut in the Devon fashion, may have been used on some of the outer timbers, and lead in the inner courts.

1665-6, Jan. 3: "Tooke an exact view of y<sup>e</sup> plaster statues and bass-relievos inserted 'twixt the timbers and punchions of the outside wallies of the Courte; which must needs have been the work of some celebrated Italian. I much admir'd how they had lasted so well and intire since the time of H. VIII. expos'd as they are to the aire; and pitty it is they are not taken out and preserv'd in some drie place; a gallarie would become them. There are some mezzo-relievos as big as the life; the stories of y<sup>e</sup> Heathen Gods, emblems, compartments, &c."

The Surveys of 1650 for Richmond, Wimbledon Park, and Nonsuch, are printed in vol. v. of the Surrey Archaeological Society's *Transactions*, and are most instructive.

Guildford.

#### Lead Architecture: Fanlights.

From BENJAMIN WALKER [A.]—

The illustration of the fanlight designed by the brothers Adam for Drapers' Hall, given in Mr. Starkie Gardner's Paper on Lead Architecture (p. 145 *ante*), suggests a question which it would be interesting, I think, to have answered. Were these decorative features cast in pure lead? I call one or two examples to mind, and am strongly of opinion that they were not, but that the lead was hardened by the addition of a certain amount of tin. Perhaps some reader of the *JOURNAL* may have had the opportunity of carefully examining some of these fanlights, and can say whether this is so or not.

#### Building Laws of Babylon, 2258 B.C.

From R. LANGTON COLE [F.]—

I understand that the Council R.I.B.A. are considering, in consultation with the London County Council, the amendment of the London Building Act. I venture, therefore, to draw their attention to the oldest building laws which have, so far as I am aware, been hitherto discovered, in the hope that their simplicity and directness may

suggest the removal of some of the complications which disfigure modern legislation on the same subject.

The stele of Khammurabi, or Hammurabi, King of Babylon about 2250 B.C. (4,000 years ago), was discovered by M. De Morgan, in 1902, on the acropolis of Susa, and its inscriptions of some 3,600 lines abound in interesting matter, most of which has been referred to in the daily press.

The extract given below is taken from Mr. St. Chad Boscawen's *First of Empires*, and the translation has been kindly checked for me by an Assyriologist friend. The latter informs me that the word for builder (*banu*) is translated "architect" by another authority, but that *rab-banu* (master builder) would have been used if an architect had been meant, and the context is so wholly inappropriate to the latter that such a translation may be dismissed as unworthy of notice.

It is interesting to note that in some similar laws relating to shipbuilding there is the exact counterpart of the modern twelve months' maintenance clause, so that it would seem that this ancient ruler was a wise and prudent person, and would have made an admirable Hon. Member of the Institute.

*BUILDING LAWS OF KHAMMURABI, 2258 B.C.*

- CCXXVIII. *If a builder builds a house for a man, and completes it, he shall pay two shekels of silver for each sar of surface.*
- CCXXIX. *If a builder build a house for a man, and has not made his work strong, and the house has fallen in and killed the owner of the house, then that builder shall be put to death.*
- CCXXX. *If it kill the son of the owner of the house, the son of that builder they shall kill.*
- CCXXXI. *If it kill the slave of the owner of the house, a slave equivalent to that slave, to the owner of the house he shall give.*
- CCXXXII. *If the property [or "furniture"] of the owner of the house it destroys, whatsoever it destroys he shall make good, and as regards the house he built and it fell, with his own property he shall rebuild the ruined house.*
- CCXXXIII. *If he build a house for a man, and did not set his work, and the walls topple over, that builder from his own money shall make that wall strong.*

LEGAL REGISTRATION OF ARCHITECTS.

Glasgow.

To the Editor of the JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

DEAR SIR,—Registration appears to me to have been erroneously handled, so perhaps I may be excused for trying to unravel a little.

Bill A. is the short title which I give to the Bill lately promoted by Mr. Atherley Jones and others. This has failed to obtain the general support desired, and has produced a strong opposition to it, probably because it gives away, legally, permanently, and absurdly, many of the advantages which its advocates think that it ought to obtain. This is very important, and everyone in favour of registration should get a copy of that Bill (Eyre & Spottiswoode, 3d.) and read for himself how it commits suicide. It is much worse than useless.

A Registration Bill might be expected to divide the profession into three classes, as follows:—*Allies*: The architects now in practice who are members of the Royal Institute of British Architects or Allied Institutes and Societies. *Residues*: The architects in practice who are not Allies. *Futures*: Those who will in future be architects.

*Allies* are of course the ones that registration would be for. They would be entitled to registration in virtue of their being at present members of the Royal Institute of British Architects, or of its Allied Institutes and Societies.

*Residues* have already existing rights that *ex necessitate rei* must be respected. An honourable Registration Bill should have a prominent part of it distinctly stating that the existing rights of architects now in practice are not to be affected, and it should create an official list of the names and addresses of all of them, so as clearly to free them for life from the penalties of the Bill, and at the same time prevent additions to their number. But Bill A. goes a long way beyond that. In a ridiculously over-generous way it blunders on to the unnecessary full extreme, and practically forces the *Residues* to be registered and possess every advantage. This is what creates disgust at Bill A.

*Residues* would unavoidably obtain a certain amount of recognition by having their names and addresses in a recognised official list of ordinary architects.

It would also be wise for the Bill to give them for life the privilege of at any time proposing to be registered (without requiring to pass examinations) by means of an application form, stating the date at which they commenced to practise for themselves, and such further particulars as they may deem explanatory or the electing body may require, and each applicant should send in photos or

drawings of at least three buildings to which he has been architect.

The argument is used that it would be impossible to get sanction to a Bill that did not provide for the registration of every existing architect. In answer to the question why, we are told that it would be impossible to obtain powers that would take away the existing rights of any architects. Of course. But there is an immense distance between preserving to them all their existing rights and the alternative of registering them as possessing all the knowledge and capacity of an architect, which we know some of them do not possess.

Bill A. has abundantly proved that its authors have not succeeded in producing a satisfactory solution of the question.

*Futures*, of course, would have to pass the examinations that were arranged.

Yours truly,

HORATIO K. BROMHEAD.

## ALLIED SOCIETIES.

### LEEDS AND YORKSHIRE SOCIETY.

The fifth General Meeting of the Session was held in the Society's Rooms on 28th January 1904, the President, Mr. Butler Wilson [F.], in the chair. Mr. J. Alfred Gotch, F.S.A. [F.], read an interesting Paper entitled "The Homes of Queen Elizabeth." The lecturer referred to the fact that, for some years prior to Elizabeth's reign, domestic habits had been changing, and it had been growing less necessary to make dwellings secure against attack. Wealth had increased, and a widespread desire for greater comfort led to many new houses being built and old ones being remodelled.

Coincident with this activity in building there was a new influence at work which had an effect upon architectural ornament. The Renaissance of classic art originating in Italy spread its ramifications over the intervening countries, and finally reached England. This tended to bring the style of English houses more or less into line with that which had established itself in Italy and the intermediate countries. Although English tradition was predisposed to Gothic forms, the new fashion, which was classic, resulted in that piquant mingling of the two styles which distinguishes most Elizabethan houses. Although a great change came over their appearance, the plans of the houses still followed traditional lines, subject to an ever-growing endeavour to secure symmetrical disposition. In not a few instances the curious pedantry which affected some of the literature of the period also dominated the buildings. Many

examples were shown upon the screen, including plans of Elizabethan houses and their surroundings. Views illustrative of the external and internal treatment of many of the best known examples were presented, including Wollaton Hall, Holdenby House, Kirby Hall, Longleat, Drayton, Fountains Hall, Haddon Hall, and some of the colleges at Oxford and Cambridge.

Mr. Robert P. Oglesby, in moving a vote of thanks to Mr. Gotch, remarked that the lecturer was evidently of opinion that an architectural Paper need not necessarily be a dry one, and expressed the wish that lecturers would follow Mr. Gotch's example in relieving his discourse by many welcome touches of humour. It seemed to him that the lecturer had come in a somewhat iconoclastic frame of mind, determined to completely demolish the Dorothy Vernon legend, which is one of the cherished possessions of Haddon Hall. A feature of the Paper which gave him particular pleasure was the manner in which Mr. Gotch had caused his study of the architecture of the period to go hand in hand with the study of the personages who built and inhabited these houses, together with their history, customs, and manners. To his mind these studies were inseparable, and proved of the greatest value to the student of any particular period.

Mr. G. B. Bulmer [F.] seconded the vote, and referred to some particular examples which Mr. Gotch had illustrated as bearing upon a work of restoration in Oxfordshire which he had just completed.

Mr. Butler Wilson [F.], President, in conveying the vote of thanks, spoke in warm terms of Mr. Gotch's distinguished contributions to the descriptive and illustrative chronicles of the Early Renaissance in England.

## MINUTES. VII.

At the Seventh General Meeting (Ordinary) of the Session 1903-4, held Monday, 1st February 1904, at 8 p.m., the President, Mr. Aston Webb, R.A. F.S.A., in the Chair, with 28 Fellows (including 14 members of the Council), 30 Associates (including 4 members of the Council), and numerous visitors, the Minutes of the Meeting held 18th January 1904 [p. 164] were taken as read and signed as correct.

The following candidates for membership, found by the Council to be eligible and qualified for membership according to the Charter and By-laws, were recommended for election, viz.:—As FELLOWS, Arthur Edward Bartlett (*Assoc.* 1891); Thomas Cooper (*Assoc.* 1892) (Birmingham); Banister Flight Fletcher (*Assoc.* 1889, *Godwin Bursar* 1893, *Inst. Essay Medallist* 1896); Sidney Frank Harris (*Assoc.* 1893) (Northampton); Arthur Keen; Charles Richard Guy Hall (*Assoc.* 1888); Frank Manoh Kent (Pietermaritzburg, Natal); Henry Winter Johnson (Market

Harborough); Alfred Hill Parker (Worcester). As ASSO-CIATES,\* Herbert Wilson Asman (*Probationer* 1898, *Student* 1901) (Bradford); Lawrence Lee Bright (*Inst. Medallist Drawings* 1901) (*Probationer* 1895, *Student* 1899) (Nottingham); Manuel Nunes Castello (*Probationer* 1899, *Student* 1900); Horace William Cubitt (*Probationer* 1897, *Student* 1899); William Robert Davidge (*Probationer* 1898, *Student* 1900); William John Delbridge (*Probationer* 1899, *Student* 1901); George Dykes, jun. (*Probationer* 1894, *Student* 1902) (Glasgow); Henry Tutty Fowler (*Probationer* 1892, *Student* 1894) (Barrow-in-Furness); Harold Griffiths (*Qualified* 1888); Edwin George Harry Gunn (*Probationer* 1899, *Student* 1901); Willie Hemingway (*Probationer* 1898, *Student* 1900) (Bolton); Holland William Hobbiss (*Probationer* 1897, *Student* 1899); Frank Garfield Johnson (*Probationer* 1899, *Student* 1902) (Newport, Mon.); John Stevens Lee, *Title Prizeman* 1898 (*Probationer* 1893, *Student* 1895); Henry Blinman Mackenzie (*Probationer* 1897, *Student* 1899) (Cardiff); Francis Winton Newman (*Ashpitel Prizeman* 1903) (*Probationer* 1895, *Student* 1897); Henry Melancthon Pritchard (*Probationer* 1900, *Student* 1901) (Cardiff); Thomas Henson Robinson (*Probationer* 1895, *Student* 1896); Andrew Rollo (*Inst. Medallist Drawings* 1903) (*Probationer* 1897, *Student* 1900); George Leonard Russell (*Probationer* 1897, *Student* 1899); Henry Walcott Stone (*Probationer* 1900, *Student* 1901) (Birmingham); Joseph John Wood (*Probationer* 1897, *Student* 1899) (Leeds). As HON. CORRESPONDING MEMBER, Glenn Brown, Fellow of the American Institute of Architects (Washington, D.C., U.S.A.).

A communication was read from Mr. A. Saxon Snell [F.] announcing that his father, the late Mr. Henry Saxon Snell, had bequeathed the sum of £750 to the Institute to found and maintain a special triennial scholarship.

The President announced that the Council proposed to submit to his Majesty the King the name of M. Auguste Choisy [*Hon. Corr. M.*], Chief Engineer in the Service des Ponts et Chaussées, Paris, as a fit recipient of the Royal Gold Medal for the current year.

The President having delivered the Annual Address to Students, the Secretary—in the absence of Mr. James S. Gibson [F.], the author—read a Criticism of the Works submitted for the Prizes and Studentships; whereupon, on the motion of Mr. Goscombe John, A.R.A., seconded by Mr. W. D. Caröe, M.A., F.S.A. [F.], a vote of thanks was passed by acclamation to the authors of the Addresses, and was responded to by the President.

\* Except where otherwise stated, all the candidates for Associateship passed the Qualifying Examination last November.

The President directed attention to the drawings the result of the tours of the following travelling Students: Mr. Jas. B. Fulton, *Soane Medallist* 1902, Mr. Chas. Gascoyne, *Title Prizeman* 1902, and Mr. J. Harold Gibbons [A.], *Pugin Student* 1903.

The presentation of prizes in accordance with the Deed of Award was then made by the President, and the various Students introduced, as follows:—

#### ESSAY PRIZE.

Medal of Merit and £10 10s. to Mr. Claude Batley.

#### MEASURED DRAWINGS MEDAL.

Silver Medal and £10 10s. to Mr. Laurence M. Gotch.

Certificate of Hon. Mention to Mr. G. S. Salomons.

Certificate of Hon. Mention to Mr. C. Lovett Gill

#### SOANE MEDALLION.

The Medallion to Mr. Frederic J. Horth.

Certificate of Hon. Mention to Mr. David Smith.

#### OWEN JONES STUDENTSHIP.

Mr. W. Davidson introduced as the *Owen Jones Student*.

Medal of Merit to Mr. H. Morley.

#### PUGIN STUDENTSHIP.

Mr. F. C. Mears introduced as the *Pugin Student*.

Medal of Merit to Mr. W. S. A. Gordon.

#### GODWIN BURSARY.

Mr. H. Phillips Fletcher [F.] introduced as the *Godwin Bursar*.

#### TITE PRIZE.

Certificate to Mr. Heaton Comyn [A.].

Medal of Merit to Mr. Arthur D. Nicholson.

#### ARTHUR CATES PRIZE.

£21 to Mr. F. Winton Newman.

Certificate of Hon. Mention to Mr. Baxter Greig [A.].

#### GRISSELL GOLD MEDAL.

Gold Medal and £10 10s. to Mr. J. William Hepburn.

Medal of Merit to Mr. Arthur Jas. Barclay.

#### ASHPITEL PRIZE.

Books of the value of £10 to Mr. F. Winton Newman.

#### PUGIN STUDENTSHIP 1903.

Medal and £40 to Mr. J. Harold Gibbons [A.].

#### TITE PRIZE 1902.

Cheque for £10 to Mr. Charles Gascoyne.

The proceedings then closed, and the meeting separate at 9.30 p.m.

## THE LONDON BUILDING ACTS AMENDMENT BILL 1904.

### RECOMMENDATIONS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The Council having been requested by the London County Council to submit suggestions as to the amending of the London Building Act 1894, in view of the Amendment Bill they propose to introduce into Parliament this year, at first referred the matter to the Practice Standing Committee. It appeared afterwards, however, that the suggestions of the Art and Science Standing Committees, on matters fully within their special spheres of interest, would be of great value, and references were accordingly made to these two committees. The three committees sent in to the Council their respective reports, and the task of collating and co-ordinating these was referred to a special committee consisting of the Chairmen of the Art, Practice, and Science Committees and two members of Council. The following recommendations and amendments, the result of their labours, have now been submitted to the London County Council:—

#### GENERAL PRINCIPLES.

1. The Act should be re-edited in order that better classification of the various Sections may be obtained, and so as to render it more intelligible to those using it, who, it must be remembered, are often inexperienced in legal phraseology.

2. In the administration of the Act more discretionary power should be given to the London County Council, the Superintending Architect, and the District Surveyors to meet special cases arising.

3. The District Surveyors should be practising Architects. It is recommended that no one should be appointed who has not been in practice as an Architect for at least 7 years, or as an Assistant to a practising Architect for at least 10 years.

4. In all cases where discretionary power is given to the L.C.C., the Superintending Architect, and District Surveyors there should be power to appeal to the Tribunal of Appeal, and parties should be able to appear either personally or by counsel. Powers should be taken to enlarge the Tribunal, if necessary, so as to enable decisions to be given with as little delay as possible. Differences arising under Parts IX. and X., and also appeals from awards under Part VIII. and any other technical points arising, should also be referred to the Tribunal.

5. Greater publicity should be given to proposed new By-Laws, and objections to them should be heard before the Tribunal of Appeal who should report to the Secretary of State before the By-Laws are confirmed.

6. The recommendations of the Royal Institute of British Architects relating to Fire Protection and Means of Escape, already before the L.C.C. in connection with the Bill withdrawn in the earlier part of last year,\* should be considered in conjunction with the following recommendations except as herein amended.

7. The schedule of fire-resisting materials wants reconsideration when the main body of the Act has assumed more definite shape.

\* These recommendations have already been printed in the JOURNAL with the explanations of the Chairman of the Practice Committee. See JOURNAL, 7th March 1903, p. 237 *et seq.*

8. Suggested sections relating to Pier Construction are submitted as Appendix A to these recommendations.

9. Suggested sections relating to Skeleton Frame Buildings are submitted as Appendix B.

It is suggested that these sections should be treated as By-laws rather than be inserted in the Act, or if embodied in the Act power should be taken to vary them as experience proves to be necessary; see fifth item, section 161 (1) of existing Act.

10. Suggestions relating to Supports under Superstructures are submitted as Appendix C.

## RECOMMENDATIONS UPON THE PRESENT ACT, IN DETAIL.

### PARTS I.—XI.

- SECTION 5 (1) & (2): The definitions of "street" and "way" are too comprehensive. A court, alley or passage not dedicated to the public, and not a thoroughfare, should be exempt.
- " (20): *Add at end of section:* "and shall also apply to the structure or wall or portion of same upon which a party wall rests in the cases where such party wall does not extend to the ground or foundation level as a party wall."
- " (25): Substitute for the present wording after the words "to be used" as follows:—"to a greater extent than half the cubical contents for human habitation."
- " *Additional definition:* The term "working classes" should be defined.
- SECTION 7: *Add at end of section:* "Provided that if the said street be in conformity with this Act no conditions limiting the time in which such street shall be made laid out or formed shall be attached to such sanction."
- SECTION 8, line 4: *After word "street" insert* "and throws the same open for public use."
- " line 7: *Delete from "abutting on" to "formed," and substitute* "or fronting on such street made or intended to be made laid out or formed thereafter."
- SECTION 9 (4), last line: *After "street" add* "already."
- Add at end of section:* "or to be formed and laid out for carriage traffic at the same time as the said street. Direct communication shall be deemed to be afforded between two streets by a street joining them either at their ends or at any point of their length forming a junction at any angle."
- SECTION 13 (1): It is considered that private property should not be taken under this Section unless compensation be given.
- " (5): The proviso as to workmen's dwellings should be omitted, as it prevents the best sites for this class being used.
- SECTION 19: *Substitute for this Section the following:* "Whenever any difference arises under Part II. of this Act the interested parties may appeal to the Tribunal of Appeal."
- SECTION 21: *Omit as being obsolete.*
- SECTION 22 (1): *Add at end of Section:* "In defining the said general line in the case of a new building at the corner of two streets he shall have regard to the general line of frontage of the principal street only."

- SECTION 39: *Omit all words after "to be used," and substitute "to a greater extent than half the cubical contents as offices counting houses or business premises other than buildings of the warehouse class."*
- SECTION 41 (1) (i): *Instead of words "open space" read "space open to the sky."*
- " (ii): *Substitute for this Clause the following: "No building shall in any part thereof be nearer to the rear boundary of the curtilage thereof than ten feet provided that in the case of any building upon a corner site the said area may be arranged in a convenient position to the satisfaction of the Superintending Architect and not necessarily extend the entire width of the rear of such building."*
- SECTION 47: *Insert before the last paragraph of this Section the following: "Where any building is erected or intended to be erected on a corner plot so as to abut upon more than one street the height of the building shall (unless the Council otherwise consent) be regulated by the wider of such streets so far as it abuts or will abut upon such wider street and also so far as it abuts or will abut upon the narrower of such streets to a distance of 40 feet from the building frontage in such wider street. The height of the remaining portion of the frontage to the narrower street shall be limited by the section regulating the height of buildings in such street except that it shall be lawful in such case where the buildings previously existing on such remaining portion were of a greater height to rebuild them to the same height or heights."*
- SECTION 49: *In order to conform with Section 47 (as amended) delete the second paragraph commencing "where" and ending "existing height."*
- SECTION 51: *Delete.*
- SECTION 53: *Add at end of Section: "Except as hereinafter provided under the Section relating to steel construction."*
- SECTION 54: *Omit the words in last paragraph: "With respect to the area of recesses and openings."*
- SECTION 56 (1), line 1: *Omit words "whether of wood or metal."*
- Add at end of Section: "Provided that any bressummer of metal may be supported solely on a sufficient metal stanchion embedded in the party or external wall so that such stanchion shall not be nearer to the centre of a party wall than four inches and in any such case no pier in addition to the party wall shall be required."*
- " (2): *Delete.*
- " (4): *Delete and substitute following: "Every bressummer bearing upon a party wall shall be borne by a templet of stone or iron or vitrified stone-ware or a corbel of stone or iron tailed through at least half the thickness of the wall and of the full breadth of the bressummer."*
- SECTION 58, at end: *Insert after the word "length" the words "and height."*
- SECTION 59 (1), line 1: *After "party wall" insert "except as hereinafter provided."*
- " line 4: *Delete the words "of the highest building adjoining thereto."*
- Add at end of sub-section: "In a building other than of the warehouse class the roof whereof is wholly constructed of fire-resisting materials the party-wall shall be carried up of a thickness of at least eight and a half inches to the underside of such roof surface."*

SECTION 59 (2), lines 4 & 7: For "four" read "three."

SECTION 61 (1), line 1: For "and every turret, &c.," read "and of every turret, &c."

" (3), line 3: After the word "horizon" add the words "unless such roof be constructed of fire-resisting materials."

" " Add at end of section the words "or structures giving access to roofs."

" (4): Amendments similar to those in sub-section 3.

" " line 3: For "seventy-five degrees" read "eighty-five degrees."

SECTION 63: Dealt with in fire protection recommendations.

SECTION 64 (1), line 2: After "erected" insert "above lowest floor."

" (9): Add at end of sub-section: "Provided always that where a ventilating flue is carried up with a smoke flue they may be separated by a properly constructed iron wythe."

" (10): For "party wall" read "party and internal walls." For "mantel" read "lintel or arch." Add at end of sub-section: "except where fireplaces in such internal walls are back to back."

" (13): Add at end of sub-section: "No chimney flue shall be nearer than two inches to the centre line of any party wall. No iron or steel joist shall be built into any flue."

" (15), line 1: For "eighteen" read "twelve."

" (18), line 2: Omit word "new."

SECTION 66 (4): Insert after the words "heated air" the words "other than air heated by hot water at low pressure."

SECTION 67: Insert after the word "floor" the words "or roof."

SECT. 70 (1) (a): For "eight feet six inches" read "eight feet."

" " (d), line 1: Omit the word "basement" and add after the word "room" the words "next the ground."

" " (e): In second paragraph for "nine" read "four and a half."

SECTION 73 (1), line 11: For "fireproof" read "fire-resisting."

" (2): Add to end of sub-section: "except in streets sixty feet wide and over where cornices may be projected not more than three feet six inches over the public way."

" (5) (a): Omit entirely.

" " Alter the end paragraph of sub-section commencing "Bay windows" as follows: Add after the word "erected" the words "beyond the general line of frontage."

" (6): In first paragraph after the word "windows" insert "balconies."

" " (a): For whole proviso read: "The face of such projections shall not extend more than three feet from the face of the front wall of the building or more than twelve inches over the public way exclusive of the cornices mouldings or other architectural features of such projections."

" " (d): After the word "together" add "except in the case of balconies."

" " (e): Delete all words after "District Surveyor."

SECTION 73 (6): *Last paragraph of sub-section commencing "oriel windows" to be altered as follows: "Oriel windows turrets or balconies to which the foregoing rules do not apply" &c.*

" *Add definition: "An oriel window is any projecting window corbelled out from an external wall or the masonry of which does not extend downwards to the level of the ground."*

SECTION 74: *Substitute for the whole section the following:*

- "(1) Every building shall be separated either by an external wall or by a party wall or other party structure from the adjoining building (if any) and from each of the adjoining buildings (if more than one) and every such party structure shall be constructed of incombustible materials to the satisfaction of the District Surveyor.
- "(2) Separate sets of chambers or offices or rooms tenanted or constructed or adapted to be tenanted by different persons shall if contained in a building exceeding forty feet in height and ten squares in area taken at the level of the first floor be separated so far as they adjoin horizontally by floors or arches constructed of fire-resisting materials and if such sets of chambers or offices or rooms are contained in a building exceeding twenty-five squares in area taken at the level of the first floor all the floors throughout and the principal staircases and enclosures of same shall be constructed of fire-resisting materials;
- "(3) A District Surveyor shall not be entitled to charge for the inspection of each such set of chambers or offices or rooms as a separate building;
- "(4) No building containing separate sets of chambers or offices or rooms tenanted or constructed or adapted to be tenanted by different persons shall without the consent in writing of the Council extend to more than fifty squares in area unless the floors be constructed throughout of incombustible materials not less than six inches thick and the principal stairs and the supporting enclosures thereof be of incombustible materials.
- "(5) In every building exceeding ten squares in area used in part for purposes of trade or manufacture and in part as a dwelling house the part used for the purposes of trade or manufacture shall be separated from the part used as a dwelling house vertically by walls or partitions and horizontally by floors such partitions and floors to be constructed of fire-resisting materials other than wood and all passages staircases and other means of approach from the front door provided that such front door be set back not more than five feet from the front of the building to the part used as a dwelling-house shall be enclosed with and constructed throughout of fire-resisting materials other than wood to the satisfaction of the District Surveyor. The part used for purposes of trade or manufacture shall (if extending to more than two hundred and fifty thousand cubic feet) be subject to the provisions of the Act of 1894 relating to the cubical extent of buildings of the warehouse class;
- "(6) All passages and staircases and other means of approach referred to in the last preceding sub-Section of this Section shall be not less than three feet wide.
- "(7) A staircase enclosed and constructed as aforesaid shall be provided in every such building as is referred to in the two last preceding sub-Sections of this Section which has any story above the ground story and where any space intervenes between the termination on the ground floor of such staircase and the street there shall be provided from the termination of such staircase to the street a passage enclosed and constructed as

- aforesaid unless means of escape to the satisfaction of the Council are provided from the side rear or roof of the building ;
- "(8) If the area of such building exceeds fifty squares an additional staircase and (if the circumstances so require) a passage enclosed and constructed as aforesaid shall (unless the Council otherwise permit) be provided in respect of every fifty squares or part of fifty squares beyond the first fifty squares.
- "(9) It shall be lawful to construct in the walls of such staircases and passages such doorways as are necessary for communicating between the different parts of the building and all internal doorways leading from the portion of the building used for trade or manufacture to such staircases and passages shall be fitted with self-closing doors of fire-resisting material hung in frames of fire-resisting material ;
- "(10) Nothing in this Section contained shall (except for the purpose of a party structure separating buildings) prevent the use of solid wooden joists placed close together or wooden joists in conjunction with pugging of a fire resisting material of a thickness of not less than five inches for the construction of fire-resisting floors ;
- "(11) Any building structure or work which has been commenced before and is in progress at the date of the commencement of this Act or which is to be carried out under any contract entered into before the passing of this Act shall not be subject to the preceding provisions of this Section but may and shall be completed subject to and in accordance with the provisions of the Acts relating thereto as in force immediately previous to the passing of this Act."

SECTION 76 (i) :

*Delete.*

SECTION 77 :

*Delete and substitute :* "Buildings shall not be united except under the following conditions :—

- "(1) If when so united and considered as one building only they would not be in conformity with this Act.
- "(2) An opening shall not be made in any party wall or in two external walls dividing buildings which if taken together would extend to more than 250,000 cubic feet except under the following conditions :—
- "(a) Such opening shall not exceed in width seven feet, or in height eight feet, except with the consent of the Council, and such opening or openings taken together shall not exceed one-half the length of such party wall on each floor of the building in which they occur.
- "(b) Such opening shall have the floor jambs and head formed of brick stone or iron and be closed by two wrought iron doors each a quarter of an inch thick in the panel at a distance from each other of the full thickness of the wall fitted to rebated frames without woodwork of any kind or by wrought iron sliding doors or shutters properly constructed and provided with bolts or other fastenings fitted into grooved or rebated iron frames or such other fire-resisting doors as may be approved from time to time by the Council.
- "(c) If the thickness of the wall be not less than twenty-four inches or the doors be placed at a distance from each other of not less than twenty-four inches such opening may be nine feet six inches in height or such other greater height as may be approved by the Council.
- "(d) For purposes of this section buildings which adjoin may be united in whole or in part if those portions in separate occupations are separated by a floor or floors or other horizontal divisions of fire-resisting materials not less than eight inches thick."

- SECTION 78, line 6: For "tribunal of appeal and save so far, &c." read "tribunal of appeal. For the purposes of this section the District Surveyor or in the event of disagreement the tribunal of appeal may in his or their discretion vary or depart from any of the enactments in this Act as to the construction of buildings that may appear to him or them necessary or desirable to suit the special circumstances of the case of any public building or any one or more of a series of public buildings or their accessories or connections within one curtilage and save so far, &c. &c."
- SECTION 80: The width of passage to apply to doorway, the clear opening between the doors when open to be the full width of the passage less double the thickness of the door.
- SECTION 84: The Royal Institute recommends that it should be defined what portion, if any, is now administered by the Council.
- SECT. 88 (6), lines 1 and 3: After "party structure" add "or external wall."
- SECTION 90 (1), line 7: Add after the word "any" the words "external or." Add at end of sub-section: "Such notice shall not be deemed to be invalid if on further investigation variations in the work proposed to be done are found to be necessary by the Surveyors to be appointed as hereinafter provided."
- " (4): For "six months" read "twelve months."
- SECTION 91 (10): For "a Secretary of State" read "the President for the time being of the Royal Institute of British Architects."
- SECTION 92: Add at end of section: "The duly appointed Surveyors shall have power at all reasonable times to enter the premises of the building owners and adjoining owners for the purpose of examining the same or inspecting the works authorised by this part of the Act."
- SECTION 93 (1), line 1: For "two months" read "one month."
- " " line 4: For "shall" read "may."
- " (3), line 2: Omit word "inconvenience."
- " Add new sub-section: "(5) Such notice need not be served in respect of any wall as to which a Party Structure Notice is necessary to be served under this Act."
- SECT. 95 (2) (d), line 1: For "floor" read "flue."
- " (f): In third line of second paragraph of sub-section strike out "as aforesaid." As it stands only buildings erected after 1894 are affected.
- SECTION 96, line 1: For "one month" read "six months."

## PART XII.

It is believed that this part of the Act requires revision to bring it up to date.

## PART XIV.

- SECTION 164 (4): The List should include *The Times*, and at least four other London daily or weekly papers.

## PART XV.

- SECTION 175: See under "General Principles."
- SECTION 190: In accordance with previous suggestions this Clause to be subject to the tribunal of appeal.
- SECTION 198: This Clause should be more explicit.

SECTION 216 : It is recommended that matter included in By-laws made since the Act was passed should be as far as possible incorporated in the body of the new Act.

### FIRST SCHEDULE.

#### PRELIMINARY.

SECTION 5 : *Omit whole and substitute : "Hollow walls may be constructed provided the aggregate thickness of the material shall equal the thickness provided under this Schedule and that the two sections of the wall shall be properly bonded together with approved ties not less than one tie to every three superficial feet, and that the inner section of the wall be in no case less than eight and a half inches in thickness unless the two sections of the wall be built in cement mortar. Walls may also be built in two thicknesses provided that they be built in cement and the space between them be not less than three-quarters of an inch wide and be filled with an approved bituminous composition."*

SECTION 7, line 3 : *After "full height or not" omit the rest of section.*

SECTION 8 : *Add at end of section the words : "Where a wall without return walls is divided into portions of different heights the thickness of each of such portions shall be governed by the height of such portion and by the length of the entire wall."*

#### \* PROPOSED NEW SECTIONS.

"SECTION 12 : If any external or party wall measured from centre to centre is not more than twenty-five feet distant from any other external or party wall to which it is tied by the beams of any floor or floors other than the ground floor or the floor of any story formed in the roof the length of such wall is not to be taken into consideration in deciding the thickness."

"SECTION 13 : Where buttresses or piers are built with external walls of thicknesses in excess of those required by the Act the walls between such piers or buttresses may be of less thickness than required for walls without such piers or buttresses at the discretion of the District Surveyor but provided that no such wall shall be of less thickness than fourteen inches." (N.B. *vide* Appendix A.)

#### PART I.

SECTION 1 : *In second paragraph omit words "and does not comprise more than two stories."*

#### PART II.

SECTION 1 : *Delete.*

SECTION 2 : *Omit words "exceeds twenty-five feet but."*

#### MISCELLANEOUS.

SECTION 1, line 7 : *For "one half" read "two-thirds."*

#### STEEL CONSTRUCTION.

Provisions to be made for this by By-laws which should be modelled on the most recent American Building Acts such as those of New York and Philadelphia ; but suggestions (Appendix B) are offered. Should the London County Council think fit to sanction the suggestion as to skeleton frame buildings, the District Surveyor's fee for such special calculation should be upon a sufficient scale to ensure the work being properly done.

## SECOND SCHEDULE.

## PART II.

SECTION (2): *Before word "granite" insert "cement concrete."*

NOTE.—A number of new fire-resisting materials are now available and more are likely to be introduced; the materials specified in the Schedule should therefore be enlarged and greater facilities given for their use.

SECTION (7): *Delete and substitute: "Floors (below the floor boards) formed of wood joists filled in with concrete not less than five inches thick composed of broken brick stone chippings ballast pumice or coke-breeze mixed with lime cement or calcined gypsum provided a fillet is secured to the side of the joists in the middle of the concrete or otherwise to the satisfaction of the District Surveyor."*

## APPENDIX A.

## SUGGESTED SECTIONS RELATING TO PIER CONSTRUCTION OF BUILDINGS.

Notwithstanding anything contained in the principal Act requiring buildings to be enclosed with walls of the thickness therein defined, it shall be lawful to erect buildings of pier construction subject to the following provisions:

1. The load of all floors and roofs shall be concentrated at points vertically over each other on the bearing walls, at which points piers carried up to the roof and continuous throughout their height shall be erected; and there shall be extending from pier to pier and properly bonded therewith a curtain wall enclosing the building.

2. No curtain wall shall be of less thickness than  $8\frac{1}{2}$  inches for the topmost 20 feet of its height, nor less than 13 inches in thickness for the remainder of its height below such topmost 20 feet, provided that window backs may in all cases be  $8\frac{1}{2}$  inches in thickness.

3. The collective width of the piers on any wall shall amount to at least one-fourth of the total length of the wall and piers taken together; and no pier shall be less than  $17\frac{1}{2}$  inches in width.

4. The thickness of the pier shall be in addition to the thickness of the curtain wall and shall be as follows:

(a) The thickness at the top and for 20 feet below the top shall be  $8\frac{1}{2}$  inches, and the intermediate parts of the pier between the base and 16 feet from the top shall be of not less thickness than would be the case if the pier were built solid throughout the space between straight lines drawn joining the thickness of the base to the thickness at 20 feet from the top.

(b) The thickness at the base shall be:

If the pier does not exceed 30 feet in height, not less than $8\frac{1}{2}$ inches							
"	"	"	40	"	"	"	13
"	"	"	50	"	"	"	$17\frac{1}{2}$
"	"	"	60	"	"	"	$21\frac{1}{2}$
"	"	"	70	"	"	"	26
"	"	"	80	"	"	"	31

With an additional  $4\frac{1}{2}$  inches for every additional 10 feet or part of 10 feet in height beyond 80 feet.

5. Openings may be made in the curtain wall in accordance with section 54 of the principal Act.

6. Any of the piers may, with the sanction of the district surveyor, be discontinued for any portion of its height, provided that the remaining piers be proportionately increased on plan by additional brickwork or stonework, or be supplemented by iron or steel stanchions or columns to the satisfaction

of the district surveyor, and that any bressummer employed shall be to the satisfaction of the district surveyor.

7. Where the piers project on both sides of the wall the total thickness of both projections shall be not less than the thickness hereinbefore specified for the piers projecting on one side only.

8. Any non-bearing wall shall be of sufficient thickness if constructed with piers and curtain walls as hereinbefore provided for bearing walls, or if of 4 inches less in thickness than provided in the first schedule of the principal Act; provided that no wall shall be less than  $8\frac{1}{2}$  inches in thickness at any part, and that not more than two stories shall be comprised within a wall of  $8\frac{1}{2}$  inches in thickness.

### APPENDIX B.

#### SUGGESTIONS FOR THE REGULATION OF SKELETON BUILDINGS.

Notwithstanding anything contained in the principal Act requiring buildings to be enclosed with walls of the thicknesses therein defined, it shall be lawful to erect buildings of iron or steel skeleton construction subject to the following provisions:

1. The skeleton framing in any wall shall be capable of safely sustaining, independently of any brickwork, the whole weight bearing upon such wall, including the weight of such wall and the due proportion of any floors and roofs bearing thereon, together with the live load on such floors and roofs.

2. The pillars supporting all iron or steel girders that carry walls or fire-resisting floors or roofs shall be of iron or steel, and shall be completely enclosed and protected from the action of fire by a casing of brickwork or concrete or other material approved by the district surveyor. Such casing shall, on the surfaces towards the exterior of the building, be at least  $8\frac{1}{2}$  inches thick, and on all other surfaces at least 4 inches thick, the whole being properly bonded with the enclosing walls of the building. The term pillar shall include all columns and stanchions or an assemblage of such columns or stanchions properly riveted or bolted together.

3. The iron and steel girders (excepting in floors and staircases) shall be similarly cased with not less than 4 inches thick properly tied and bonded to the remaining work; but the flanges of the girders and the plates and angles connected therewith may approach within 2 inches of the surface of the casing.

4. Girders to support the enclosing walls shall be fixed at or within 4 feet of the floor line of each story.

5. No enclosing wall of the building shall be of less thickness than  $8\frac{1}{2}$  inches for the topmost 20 feet of its height, nor less than 13 inches in thickness for the remainder of its height below such topmost 20 feet, provided that window backs may, in all cases, be  $8\frac{1}{2}$  inches in thickness.

6. All brickwork and concrete shall be executed in cement and shall be bedded close up to the iron or steel without cavity between, and all joints shall be made full and solid. Nothing in this section shall prevent the use of stone as an external facing for buildings, provided that all work faced with stone shall be 4 inches thicker than hereinbefore provided.

7. (a) No steel or wrought iron pillar shall in any part be less than  $\frac{1}{4}$  inch thick, nor shall any such pillar have an unsupported length of more than 40 times its least lateral dimensions, nor more than 160 times its least radius of gyration.

(b) The ends of all such pillars shall be faced to a true surface at right angles to the axis.

(c) All joints in such pillars shall be close butted with cover-plates properly riveted, and, except where unavoidable, no joint shall be made except at or near the level of a girder.

(d) The foot of all such pillars shall have a proper base-plate riveted thereto with sufficient gusset pieces to properly distribute the load on the foundations.

(e) Where any such pillars are built up hollow, the cavities shall either be filled up with cement concrete or be covered in at both ends to exclude the air.

8. (a) In any cast-iron pillar the metal shall not be in any part of less thickness than  $\frac{3}{4}$  inch nor less than one-twelfth of the least lateral dimension. Nor shall such pillar have an unsupported length of more than 20 times its least lateral dimension nor more than 80 times its least radius of gyration.

(b) The caps and bases of such pillars shall be in one piece with the columns, or be connected thereto with a properly turned and bored joint sufficiently fixed.

(c) All such pillars shall be turned or planed top and bottom to a true face at right angles to the axis.

(d) All joints in such pillars shall be at or near the level of a floor, and shall be fixed and made with not less than four bolts at least  $\frac{3}{4}$  inch in diameter.

(e) The foot of all such pillars shall have such area as may be necessary to properly distribute the load on the foundations.

9. All girders that carry walls or floors or roofs shall be of wrought iron or mild steel.

10. (a) All floors and all staircases (together with their enclosing walls) shall be constructed throughout of fire-resisting materials and be carried upon supports of fire-resisting materials.

(b) All iron and steel carrying loads used in the construction of any floor or staircase shall be protected from the action of fire by being encased to the satisfaction of the district surveyor in concrete, brickwork, terra-cotta or metal, lathing and plaster or cement without any wood firrings.

11. All structural metal work shall be cleaned of all scale dust and rust and be thoroughly coated with one coat of boiled oil or paint or other approved material before erection, and after erection shall receive at least one additional coat.

12. (a) The dead loads of all buildings shall consist of the actual weight of walls, floors, roof, partitions, and all permanent construction.

(b) The live load shall consist of all loads other than dead loads.

(c) For the purpose of calculating the loads on pillars in buildings, the live load on floors shall be estimated as equivalent to the following dead load:

For dwelling houses, hotels, hospitals, lodging houses, and similar buildings,  $\frac{5}{8}$  cwt. per superficial foot.

For office buildings,  $\frac{7}{8}$  cwt. per superficial foot.

For places of public assembly, workshops, and retail shops, and similar buildings, 1 cwt. per superficial foot.

For buildings of the warehouse class, not less than 2 cwt. per superficial foot.

(d) The live load on the roof shall be estimated at  $\frac{1}{4}$  cwt. per superficial foot measured on the surface of such roof.

13. For the purpose of determining the extreme load to be carried on pillars in buildings of more than two stories in height, a reduction of the live loads shall be allowed as follows:—

For the roof and top story the live load shall be calculated in full.

For the next succeeding lower story a reduction of 5 per cent. from the live load fixed by this section.

For the next succeeding lower story a reduction of 10 per cent.

For each succeeding lower story the amount of the reduction shall be 5 per cent. more than for the story immediately above until at the eleventh story from the top the reduction shall be 50 per cent.

For each remaining story, if any, below such eleventh story from the top the reduction shall be 50 per cent.

14. In pillars the actual working stress per square inch shall not exceed that given in the following table and in like proportion for intermediate ratios:

Where the Length divided by Least Radius of Gyration Equals.	Working Stress in Tons per Sq. Inch of Section.		
	Cast Iron.	Steel.	Wrought Iron.
160	—	2.512	2.142
140	—	2.957	2.477
120	—	3.460	2.825
100	—	4.017	3.170
80	1.875	4.452	3.470
60	2.442	4.832	3.727
40	3.026	5.100	3.895
20	3.464	5.290	4.000

Where a pillar is built into a wall the radius of gyration of that pillar in the direction of the thickness of the wall shall be taken for the purpose of the above table.

15. The actual working stress of iron and steel (except in the case of pillars as hereinbefore set out) in tons per square inch of sectional area, shall not exceed those given in the following table :

	Tension	Compression	Shearing	Bearing
Cast iron . . . . .	1 $\frac{1}{2}$	7	2 $\frac{1}{2}$	8
Wrought iron . . . . .	5	4	4	4
Mild steel . . . . .	7 $\frac{1}{2}$	6	5	10
Cast steel . . . . .	5	10	7 $\frac{1}{2}$	15

16. In addition to the foregoing provisions and the general rules of construction for buildings of the class to which they belong, as required by the principal Act and any amendment, all skeleton frame buildings shall, as regards their metal framing, bracing, walls, partitions, floors, roofs, staircases, and foundations, be constructed in such manner as may be approved by the district surveyor.

17. The person proposing to erect a skeleton frame building shall, one month before commencement of the building, deposit with the district surveyor a complete set of the drawings of such building showing the details of construction of all its parts, together with a detailed copy of all the calculations of the stresses and material, such calculations to be in such form as the Tribunal of Appeal shall from time to time determine. Should such drawings or calculations be in the opinion of the district surveyor not in sufficient detail, he may require such further particulars as may be necessary.

18. The district surveyor may, for the purpose of due supervision of the building and at the expense of the owner of the building, cause any pillar to be drilled at any point to ascertain its thickness, and may cause to be made any other tests he may consider desirable.

19. Any person dissatisfied with any requirement of the district surveyor under this section may appeal to the Tribunal of Appeal.

20. There shall be paid to the district surveyor by the builder or the owner in respect of every skeleton frame building, at such time as the drawings are deposited with the district surveyor, a calculation fee : such fee shall be in addition to the fee payable under section 154 of the principal Act, and shall be according to the following schedule :— (*See recommendation supra, p. 188, on Steel Construction.*)

## APPENDIX C.

### SUPPORTS UNDER SUPERSTRUCTURES.

In all buildings there shall be on all street frontages, piers, or other supports of stone, granite, brick, metal, or other approved materials, from the level of the ground to the level of the main wall of the superstructure above the ground, mezzanini, or first floors, of a total breadth on each street frontage equal to the following :—

On frontages up to 20 feet wide, one tenth part,
„ 20 to 30 feet wide, one ninth part,
„ 30 feet wide and over, one eighth part

of the respective widths of such frontages.

No piers or other supports shall be placed further apart than 30 feet measured from centre to centre of such piers or other supports, and no single pier shall in any case be less than 15 inches on the face other than those at party walls, which may be not less than 9 inches on the face and placed opposite the centre of such party walls. Such piers shall not be covered with mirrors or otherwise concealed.

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